



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

quantity as will compare favorably with the results achieved in other countries" (pp. 111, 112). It is, therefore, scientifically practicable as an economic policy.

The expediency of this policy is argued, on the ground that the beet-sugar industry everywhere brings great advantage to agriculture as a whole (pp. 87, 114), by improving both the methods and the results of cultivation of other crops. All northern European experience tends to prove this. The adoption of this policy is urged, therefore, as one way of escape from the discouraging condition in which the rural population of Italy now finds itself. But, before this single industry can work its remedial advantages to agriculture, fiscal legislation must be revised, in order to give a more certain field of investment to capitalists, by giving protection to domestic manufactures of sugar and by so adjusting the excise tax as to encourage more rapid progress in domestic consumption. Domestic refining has already made gratifying advances and sugar-beet manufacture has passed beyond the experimental stage.

If, therefore, an import tax high enough to be of a truly protective character were imposed, and the loss of revenue on imports were made good by an excise tax on the products of the beet-root factory, it seems probable that the proposed readjustment of fiscal burdens would result in the desired development of beet-sugar manufacture and the consequent encouragement of agriculture. Twenty-five factories like the one at Rieti could make all that Italy now consumes.¹ It does not appear that the consumer would be injured by this change in policy. It would probably even improve his position. At any rate, it seems worth while to try to develop this industry, in which Italy has almost alone remained stationary, while other European countries have made signal successes.

NEW YORK CITY.

JOHN FRANKLIN CROWELL.

The Wheat Problem. By SIR WILLIAM CROOKES. New York, G. P. Putnam's Sons; London, John Murray, 1900. — xiii, 272 pp.

This book includes an address by Sir William Crookes, upon "The World's Wheat Supply," before the British Association for the Advancement of Science in 1898; "Replies to my Critics," by the same author; "Our Present and Prospective Food Supply," by C. Wood Davis; a reprint of an article from *The North American*

¹ *Sucrerie*, tome liii, no. 9, pp. 251-253.

Review, upon "America and the Wheat Problem," by John Hyde; and a rejoinder by the writer last mentioned to an article in the *Popular Science Monthly* by Edward Atkinson. The appendices contain a number of statistical tables.

The thesis of Sir William Crookes is that a generation hence the wheat eaters of the world will have increased 230,000,000 and the area devoted to wheat culture will have reached its limit. After 1931 the wants of the increasing army of bread eaters will have to be met by enlarging the yield per acre, rather than by an extension of the wheat-growing area. "Before we are in the grip of actual dearth the chemist will step in and postpone the day of famine" by "the fixation of atmospheric nitrogen" in the soil.

This is a case of economic reasoning in its most difficult field, that of prediction. It must take into account, with other data, the area of unreclaimed land adapted to wheat, the extent to which wheat production can encroach upon land now used for other crops, the average world yield per acre, the increase of population, the *per capita* consumption and the price per bushel. The chances of error in such a problem are manifold, especially in an age so subject to dynamics as our own. Furthermore, "the world has become . . . accustomed to look upon the vast plains of other wheat-growing countries as inexhaustible granaries." The possibility of a shortage in the future wheat supply also runs counter to the prevailing optimism of the race. For these reasons the prediction of Sir William Crookes has encountered much criticism.

Not since Tyndall shocked the religious sentiment of almost the entire English-speaking world by proposing, at the Belfast meeting in 1874, that certain wards of a hospital should be set apart for a scientific test of the efficacy of prayer, has the annual address of a president of the British Association for the Advancement of Science excited so general an interest, or provoked so much unfavorable criticism [p. 191].

In "Replies to my Critics" — covering nearly one hundred pages — the author strengthens his position. The reply to Mr. Atkinson leaves little to be desired. Apparently no one has ground to view the future with more satisfaction than the American farmer. In the course of thirty years, however, so many things may happen which it is impossible to foresee that any prediction, no matter how carefully made, is more or less open to doubt. In any event, a service has been rendered in assembling so much interesting material within the limits of a volume.

C. F. EMERICK.